CLAIMS

I claim:

21. A collection information manager process for associating a collection instance with corresponding collection type definition information, to be performed on or with the aid of a programmable device, comprising the following steps:

(a) obtaining collection specifier information for a collection instance,

(b) deriving a collection type indicator from said collection specifier information,

(c) using said collection type indicator to obtain corresponding collection type definition information for said collection instance,

wherein collections are data structures comprised of a collection specifier and collection content containing zero or more collection content files, and wherein collection specifiers contain information about collection instances, and wherein collection type definitions are user-defined sets of attributes that are useful to application programs for understanding and processing collections,

thereby associating said collection instance with corresponding collection type definition information, and thereby providing a solution to the collection information management problem, and thereby enabling software programs to process collection instances more knowledgeably, in the presence of detailed, corresponding collection type definition information.

22. The process of claim 21, further comprising

(a) using said collection type definition information to obtain corresponding collection content information for said collection instance,

thereby providing software programs with relevant and detailed collection content information for said collection instance, and thereby enabling software programs

to perform collection processing operations on collection instances that were not previously possible in the absence of collection content information.

23. The process of claim 21, further comprising

(a) writing said collection specifier information into a collection data structure,

(b) writing said collection type definition information into a collection type definition data structure, and

(c) making said collection data structure and said collection type definition data structure available for use by a calling software program,

thereby providing software programs with a practical means for obtaining detailed collection type definition information for collection instances, and thereby enabling software programs, guided by said collection specifier information and said collection type definition information, to perform collection processing operations that were not previously possible.

24. The process of claim 21, wherein

(a) said step of obtaining collection specifier information uses a collection specifier API means,

thereby increasing the network accessibility and scalability of said process for making collection information available to said software program.

25. The process of claim 21, wherein

(a) said step of obtaining collection type definition information uses a collection type definition API means,

thereby increasing the network accessibility and scalability of said process for making collection information available to said software program.

26. The process of claim 22, wherein

    (a) said step of obtaining collection content information uses a collection content API means,

    thereby increasing the network accessibility and scalability of said process for making collection information available to said software program.

27. A programmable collection information manager device for associating a collection instance with corresponding collection type definition information, whose actions are directed by software executing a process comprising the following steps:

    (a) obtaining collection specifier information for a collection instance,

    (b) deriving a collection type indicator from said collection specifier information,

    (c) using said collection type indicator to obtain corresponding collection type definition information for said collection instance,

    wherein collections are data structures comprised of a collection specifier and collection content containing zero or more collection content files, and wherein collection specifiers contain information about collection instances, and wherein collection type definitions are user-defined sets of attributes that are useful to application programs for understanding and processing collections,

    thereby associating said collection instance with corresponding collection type definition information, and thereby providing a solution to the collection information management problem, and thereby enabling software programs to process collection instances more knowledgeably, in the presence of detailed, corresponding collection type definition information.

28. The programmable device of claim 27, further comprising

(a) using said collection type definition information to obtain corresponding collection content information for said collection instance,

thereby providing software programs with relevant and detailed collection content information for said collection instance, and thereby enabling software programs to perform collection processing operations on collection instances that were not previously possible in the absence of collection content information.

29. The programmable device of claim 27, further comprising

(a) writing said collection specifier information into a collection data structure,

(b) writing said collection type definition information into a collection type definition data structure, and

(c) making said collection data structure and said collection type definition data structure available for use by a calling software program,

thereby providing software programs with a practical means for obtaining detailed collection type definition information for collection instances, and thereby enabling software programs, guided by said collection specifier information and said collection type definition information, to perform collection processing operations that were not previously possible.

30. The programmable device of claim 27, wherein

(a) said step of obtaining collection specifier information uses a collection specifier API means,

thereby increasing the network accessibility and scalability of said process for making collection information available to said software program.

31. The programmable device of claim 27, wherein

(a) said step of obtaining collection type definition information uses a collection type definition API means,

thereby increasing the network accessibility and scalability of said process for making collection information available to said software program.

32. The programmable device of claim 28, wherein

(a) said step of obtaining collection content information uses a collection content API means,

thereby increasing the network accessibility and scalability of said process for making collection information available to said software program.

33. A computer readable memory, encoded with data representing a computer program, that can be used to direct a computer when used by the computer, comprising:

(a) means for obtaining collection specifier information for a collection instance,

(b) means for deriving a collection type indicator from said collection specifier information, and

(c) means for using said collection type indicator to obtain corresponding collection type definition information for said collection instance,

wherein collections are data structures comprised of a collection specifier and collection content containing zero or more collection content files, and wherein collection specifiers contain information about collection instances, and wherein collection type definitions are user-defined sets of attributes that are useful to application programs for understanding and processing collections,

thereby providing means for associating said collection instance with corresponding collection type definition information, and thereby providing a solution to the collection information management problem, and thereby enabling software programs to process collection instances more knowledgeably, in the presence of detailed, corresponding collection type definition information.

34. The computer readable memory of claim 33, further comprising

(a) means for using said collection type definition information to obtain corresponding collection content information for said collection instance,

thereby providing software programs with relevant and detailed collection content information for said collection instance, and thereby enabling software programs to perform collection processing operations on collection instances that were not previously possible in the absence of collection content information.

35. The computer readable memory of claim 33, further comprising

(a) means for writing said collection specifier information into a collection data structure,

(b) means for writing said collection type definition information into a collection type definition data structure, and

(c) means for making said collection data structure and said collection type definition data structure available for use by a calling software program,

thereby providing software programs with a practical means for obtaining detailed collection type definition information for collection instances, and thereby enabling software programs, guided by said collection specifier information and said collection type definition information, to perform collection processing operations that were not previously possible.

36. The computer readable memory of claim 33, wherein

(a) said means for obtaining collection specifier information uses a collection specifier API means,

thereby providing means for increasing the network accessibility and scalability of said process for making collection information available to said software program.

37. The computer readable memory of claim 33, wherein

(a) said means for obtaining collection type definition information uses a collection type definition API means,

thereby providing means for increasing the network accessibility and scalability of said process for making collection information available to said software program.

38. The computer readable memory of 34, wherein

(a) said means for obtaining collection content information uses a collection content API means,

thereby providing means for increasing the network accessibility and scalability of said process for making collection information available to said software program.

39. A computer readable memory containing data with a structure capable of causing a programmable device to operate in a particular manner, the structure comprising:

(a) a compilation of collection type definition information for one or more collection types, organized according to collection type, and containing collection processing information,

(b) means for using a collection type indicator from a request for collection type information initiated by a request originator to obtain corresponding collection type definition information from said compilation, and

(c) means for returning said obtained collection type definition information to said request originator,

wherein collections are data structures comprised of a collection specifier and collection content containing zero or more collection content files, and wherein collection specifiers contain information about collection instances, and wherein collection type definitions are user-defined sets of attributes that are useful to application programs for understanding and processing collections,

thereby providing automated collection processing programs with a practical means for reusing an existing compilation of collection type definition knowledge.

40. A programmable collection information manager device for making collection type definition information directly available over a network connection, whose actions are directed by software executing a process comprising the following steps:

(a) in response to an incoming network request for collection type definition information, wherein said network request contains a collection type indicator, obtaining corresponding collection type definition information using a collection type definition API means connected to at least one collection type definition server means,

(b) writing said obtained collection type definition information into a collection type definition data structure, and

(c) sending said obtained corresponding collection type definition information stored in said collection type definition data structure over the network in response to said incoming query,

wherein collections are data structures comprised of a collection specifier and collection content containing zero or more collection content files, and wherein collection specifiers contain information about collection instances, and wherein collection type definitions are user-defined sets of attributes that are useful to application programs for understanding and processing collections,

thereby implementing a scalable network service for providing shared collection type definition information to automated collection processing programs, and thereby providing an automated, scalable means for storing and reusing human collection processing knowledge, toward the goal of reducing the knowledge burden required of knowledge workers who currently perform repetitive manual processes on collections of files.

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